



Union Street Corridor Study

Public Meeting
September 19, 2012



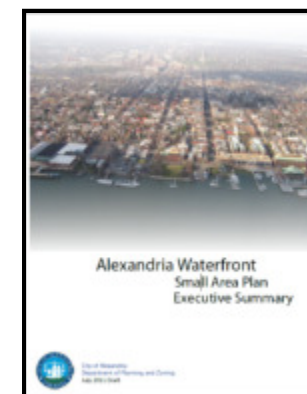
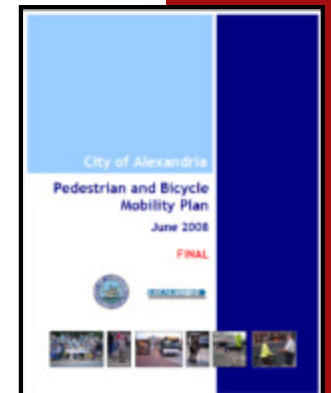
Agenda

- Overview of Project and Planning Process
- Site-Specific Improvement Recommendations
- Corridor Alternatives
- Phasing Considerations and Approach
- Next Steps



Project Goals and Challenges

- Evaluate existing conditions along Union Street for all modes.
- Identify specific strategies to ensure that Union Street fosters connections.
- Balance the needs of all modes and follow Complete Streets design principles.
- Enhance safety for all modes.



Data Driven Process

- Field Assessments
- Traffic Counts (all modes)
- Parking
- Overnight Parking
- Delivery Truck Activity
- Motorcoach Activity
- Crash Data

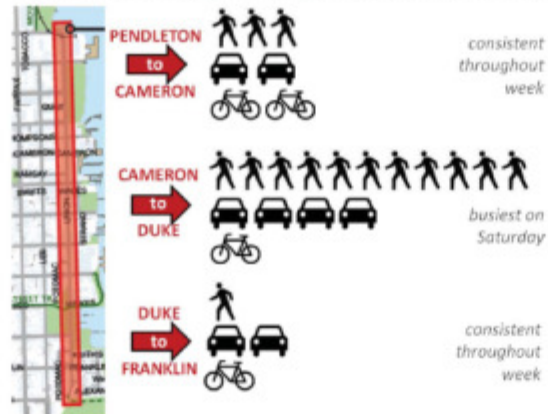


EXISTING CONDITIONS

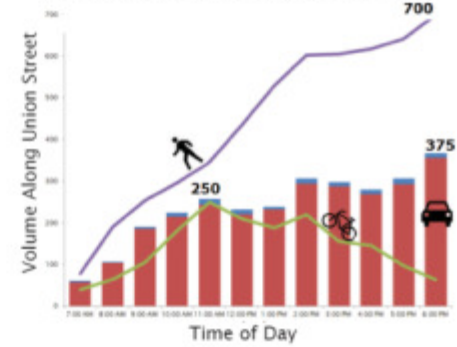
DATA COLLECTION & OBSERVATIONS



VOLUMES ALONG CORRIDOR (NOT TO SCALE)



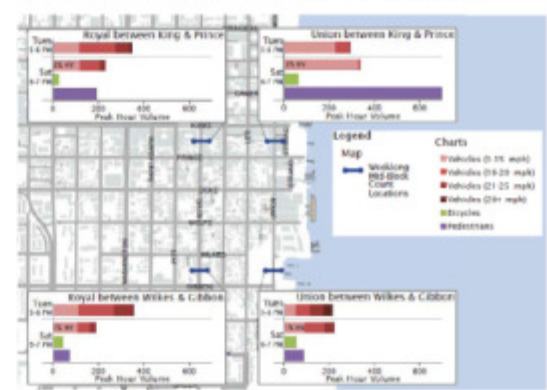
SATURDAY VOLUMES ON UNION (BETWEEN PRINCE & KING STREETS)



EXISTING CROSS SECTION



SPEEDS & USERS ON ROYAL VS UNION



Union Street Corridor Study
City of Alexandria, Virginia





Stakeholder Engagement

- Waterfront Commission
- Intercept Surveys
- Stakeholder Interviews
 - ACVA
 - Police Department
 - Union Street Public House
 - Bicycle and Pedestrian Advisory Committee
 - Potomac Riverboat Company
 - Old Town Civic Association
- Ongoing City Staff Engagement





Project Schedule

TASK	MAY	JUNE	JULY	AUG	SEPT	OCT
Fieldwork/Data Collection						
Analysis and Documentation						
Develop & Refine Recommendations						
Waterfront Commission Meetings		X		X	X	
Public Meeting					★	
Final Report						
Planning Commission Meeting						
Transportation Commission Meeting						
City Council Meeting						

Site-specific Improvements

- Mt. Vernon Trail Connection
- King Street & Union Street/Union Block of King Street
- Windmill Hill Park



Site-specific Improvement

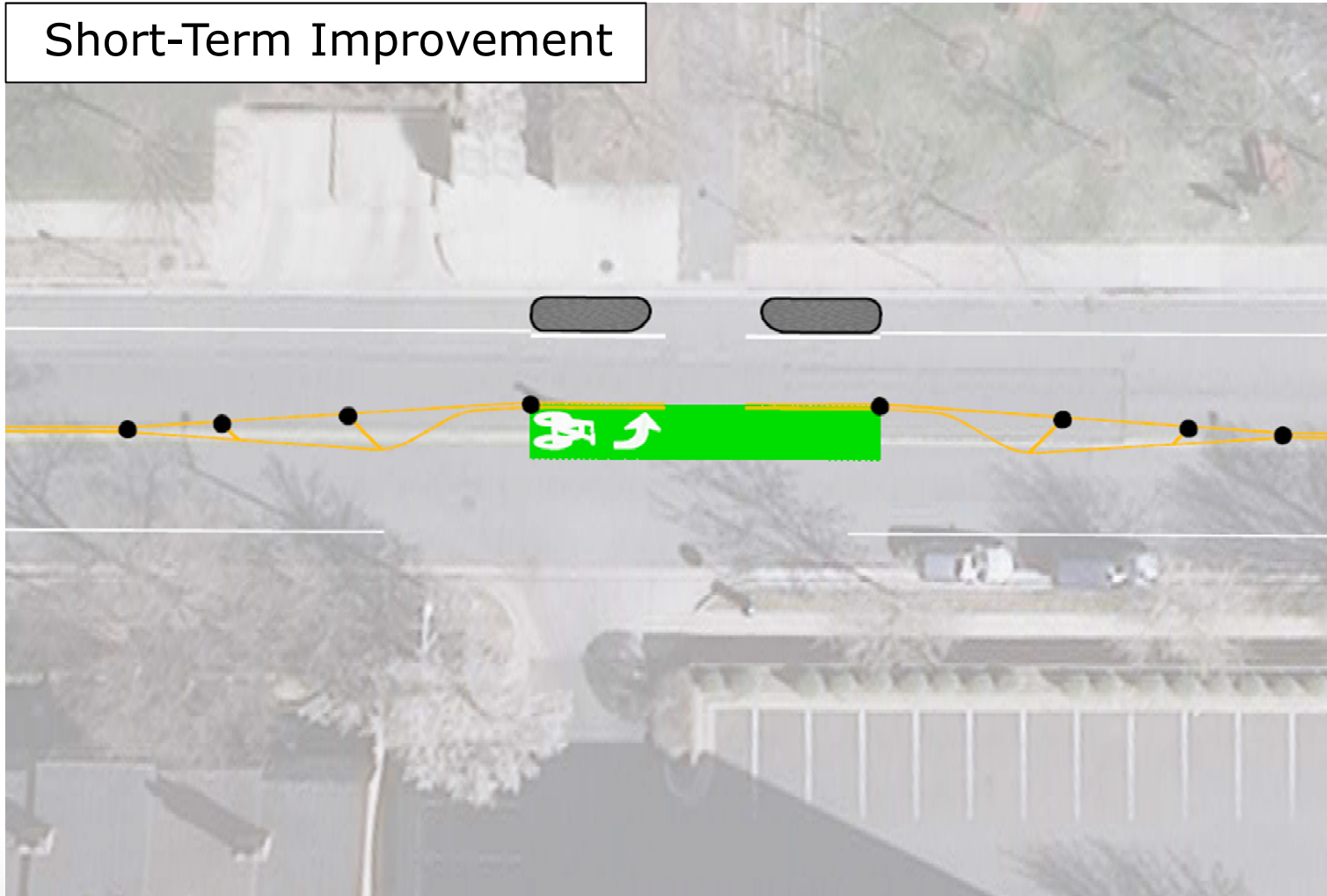
Mt. Vernon Trail Connection - Issues

- Mt. Vernon Trail connection to Pendleton Street
- Connecting parks
- Crossing train tracks
- Pedestrian crossing where Union Street and Pendleton intersect



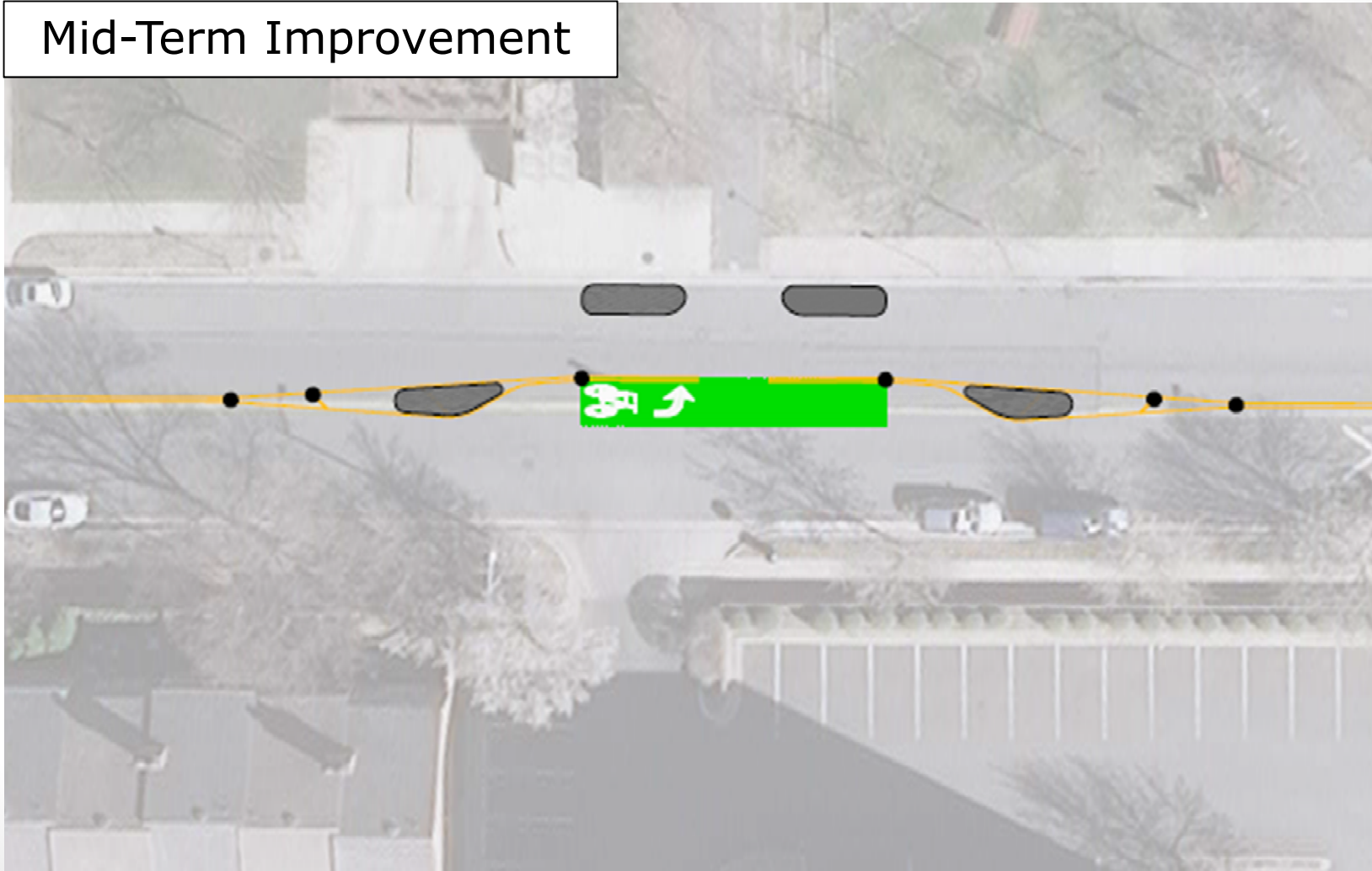
Site-specific Improvement Mt. Vernon Trail Connection

Short-Term Improvement



Site-specific Improvement Mt. Vernon Trail Connection

Mid-Term Improvement



Design Group

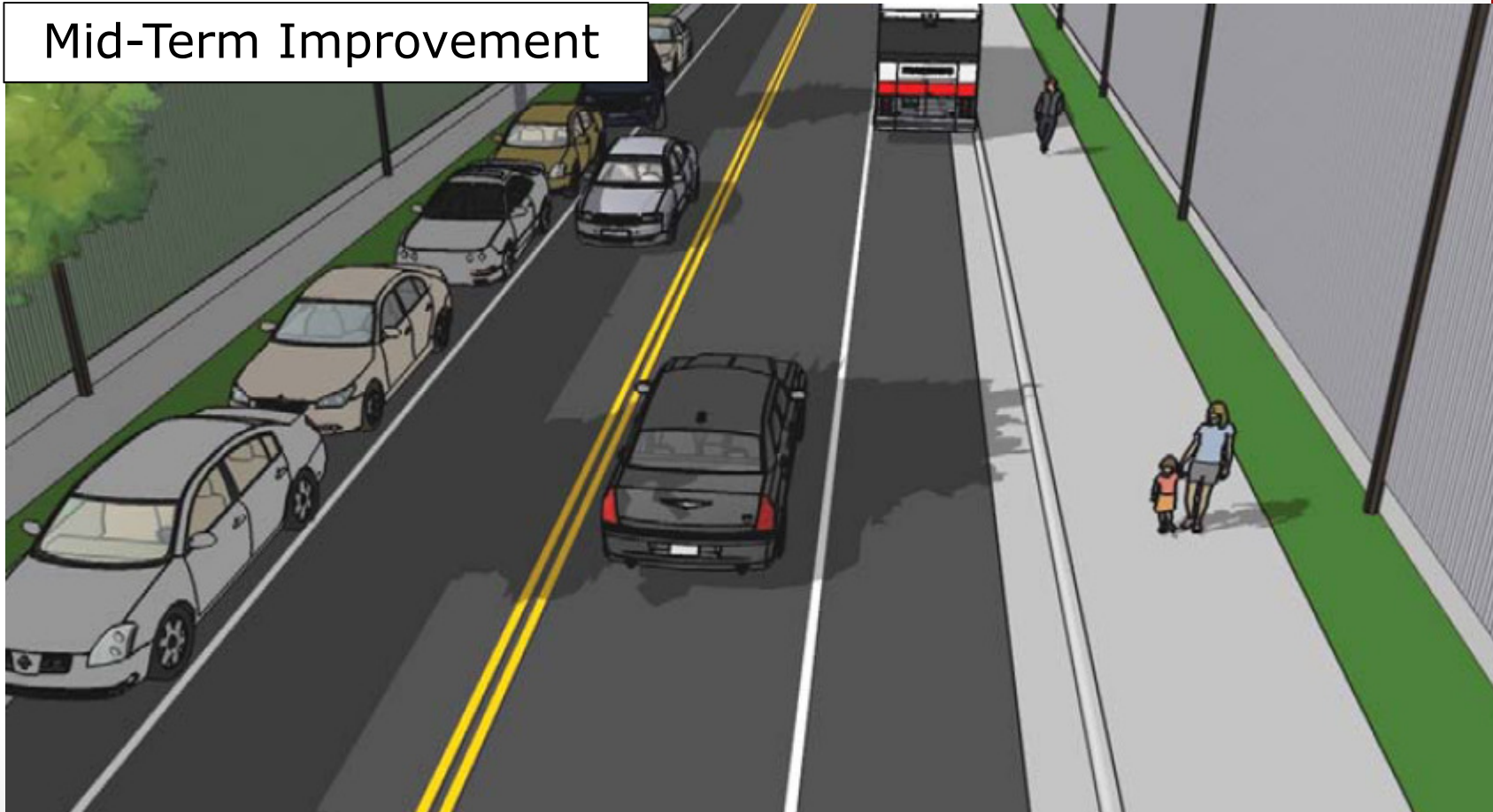
Site-specific Improvement Mt. Vernon Trail Connection

Short-Term Improvement



Site-specific Improvement Mt. Vernon Trail Connection

Mid-Term Improvement



Site-specific Improvement Union & King Street - Issues

- Pedestrian crowding on corners and sidewalk
- Pedestrians concerned with being hit by a motorist or bicycle
- Bicyclists compliance with stop sign
- Motorists wait time and frustration



Site-specific Improvement

Unit Block of King Street - Background

Waterfront Plan recommended:

- Making the unit block of Unit Street a “pedestrian hub”.
- Limiting motor access
- Creating more space for pedestrians to congregate.

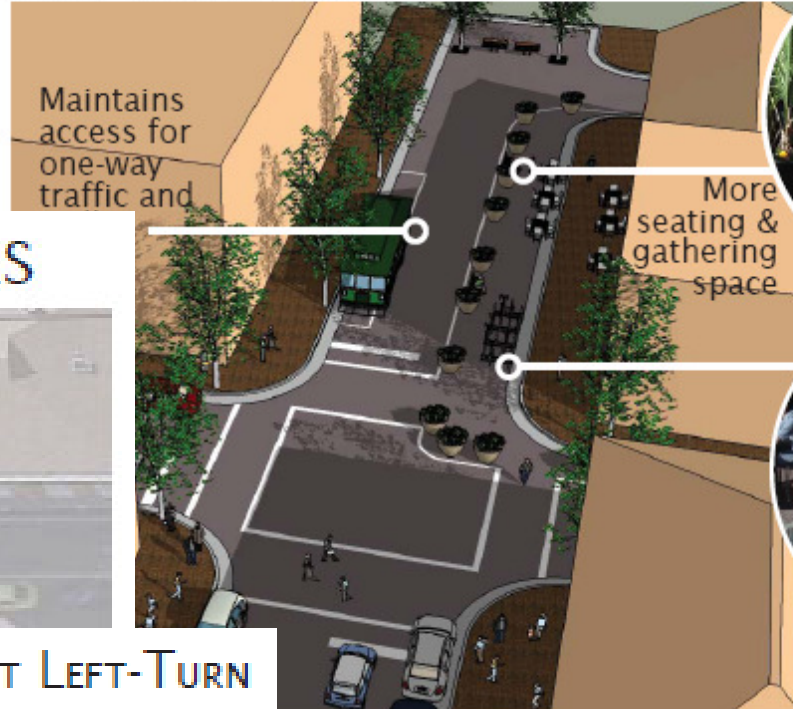


Site-specific Improvement King & Union/Unit Block of King Street

IMPROVED CROSSWALKS



PILOT PEDESTRIAN SPACE

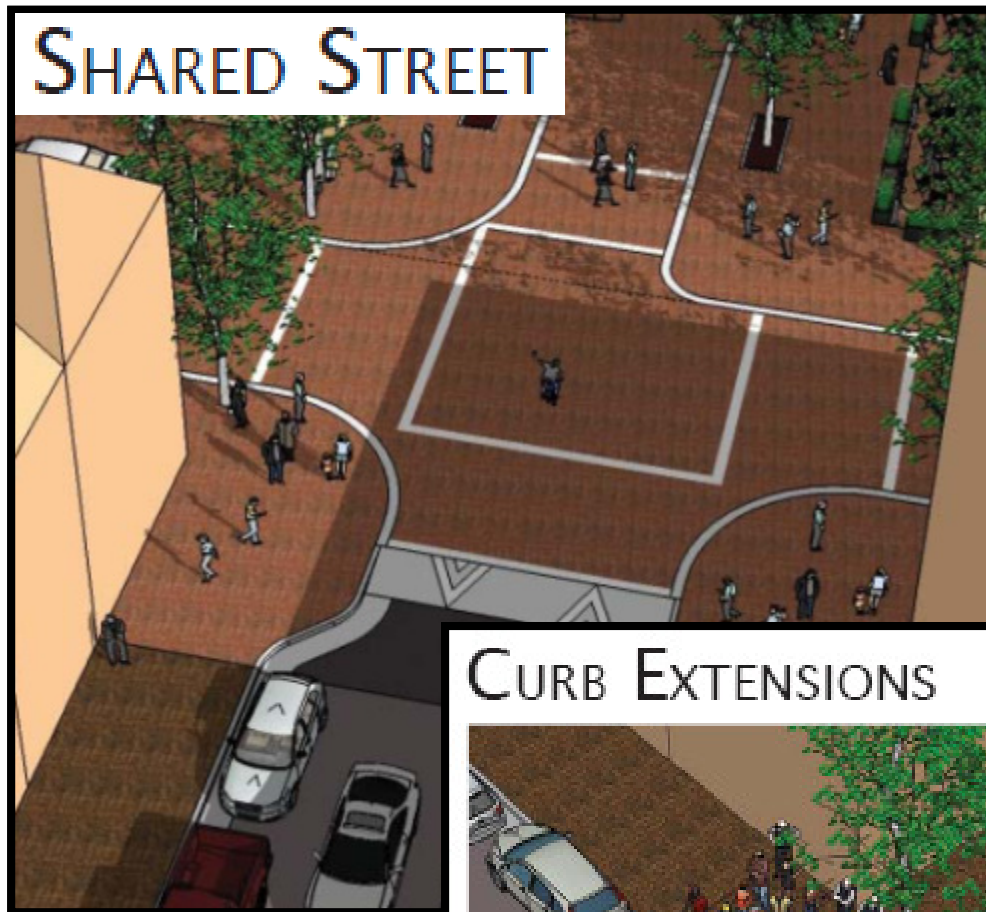


Bike corral for more bike parking

PILOT LEFT-TURN RESTRICTIONS



Site-specific Improvement King & Union/Unit Block of King Street



CURB EXTENSIONS



Site-specific Improvement Windmill Hill Park

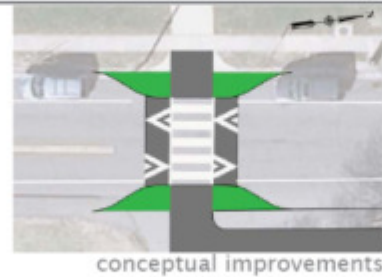
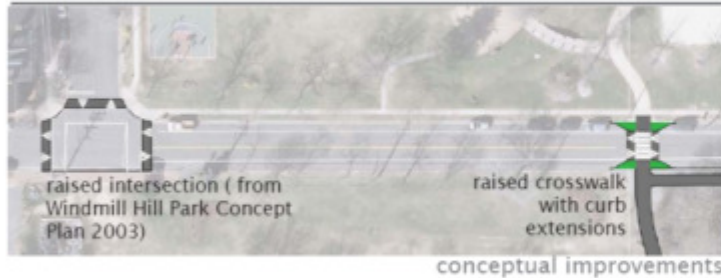


- Higher speeds between Wolfe Street and Gibbon Street
- Bicycles entering and exiting via Wilkes Street tunnel
- Desire to connect both sides of Windmill Hill Park
- Build on work done in Windmill Hill Park Concept Plan (2003)



SITE-SPECIFIC IMPROVEMENTS: WINDMILL HILL PARK

OPTION 1: RAISED CROSSWALK



OPTION 1A: CENTER MEDIAN



SITE ISSUES

- Cars speeding between Wolfe Street and Gibbon Street
- Bicycles entering and exiting via Wilkes Street Trail
- Desire to connect both sides of Windmill Hill Park
- Desire to build on work done in Windmill Hill Park Concept Plan (2003)
- All improvements to be coordinated with future bulkhead and park design

OPTION 2: CHICANE



Site-specific Improvement Windmill Hill Park

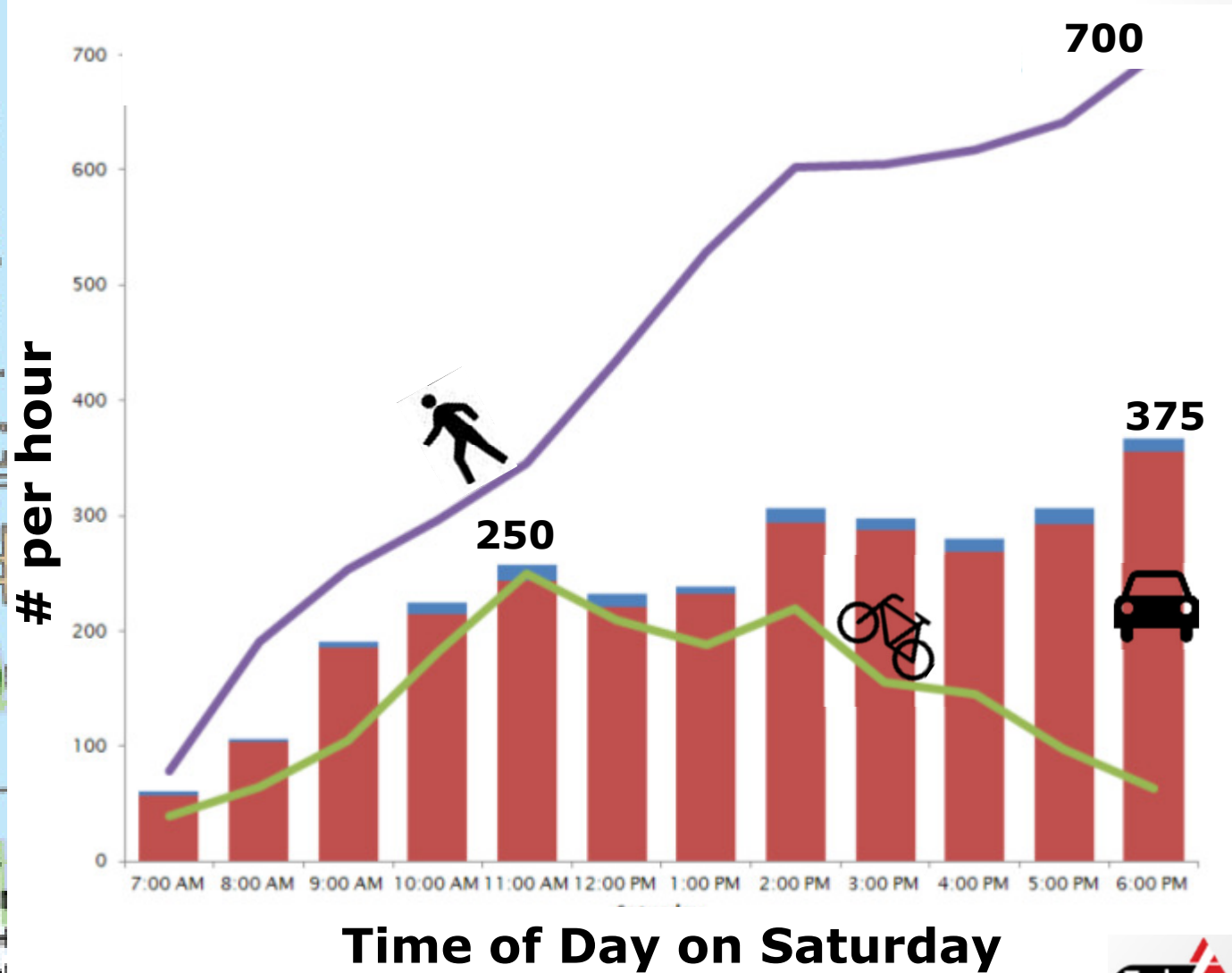
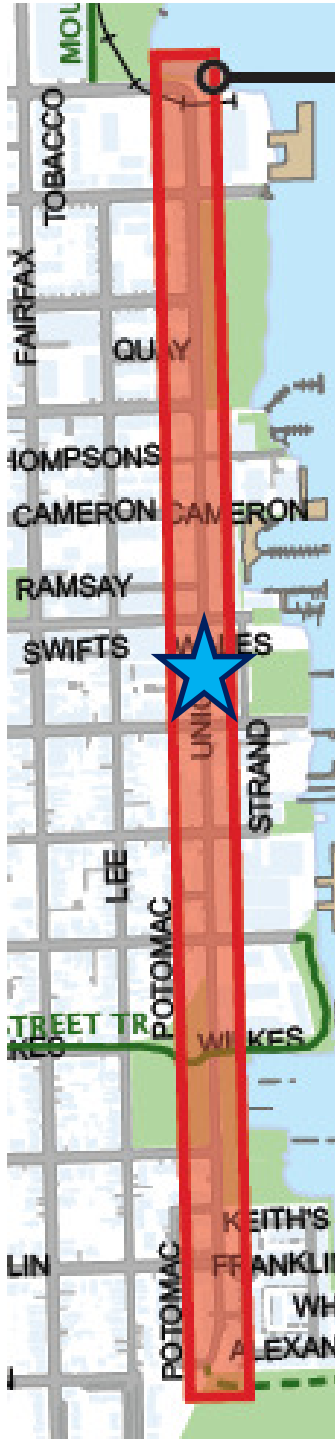


Framework for Corridor Alternatives Development

- Limited roadway width
- Serve all users
- Unique solutions for different areas
- Respect historic character of Union Street
- Need to define Union Street as a pedestrian and bicycle priority street



Union Street Today Multi-Modal Volumes



Union Street Today Multi-Modal Volumes

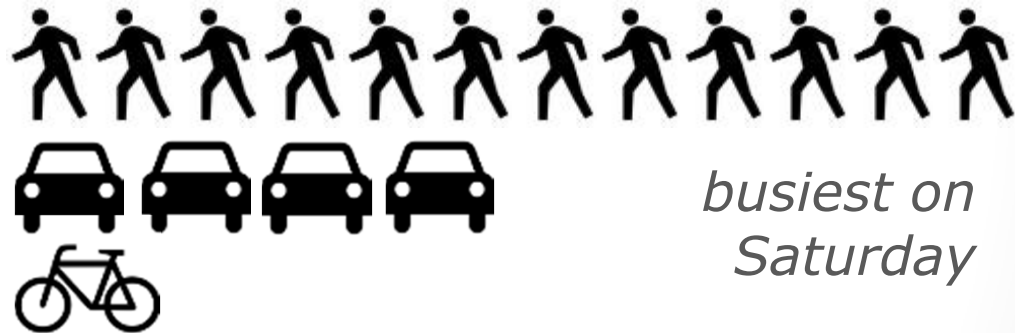


PENDLETON
to
CAMERON



*consistent
throughout
week*

CAMERON
to
DUKE



*busiest on
Saturday*

DUKE
to
FRANKLIN

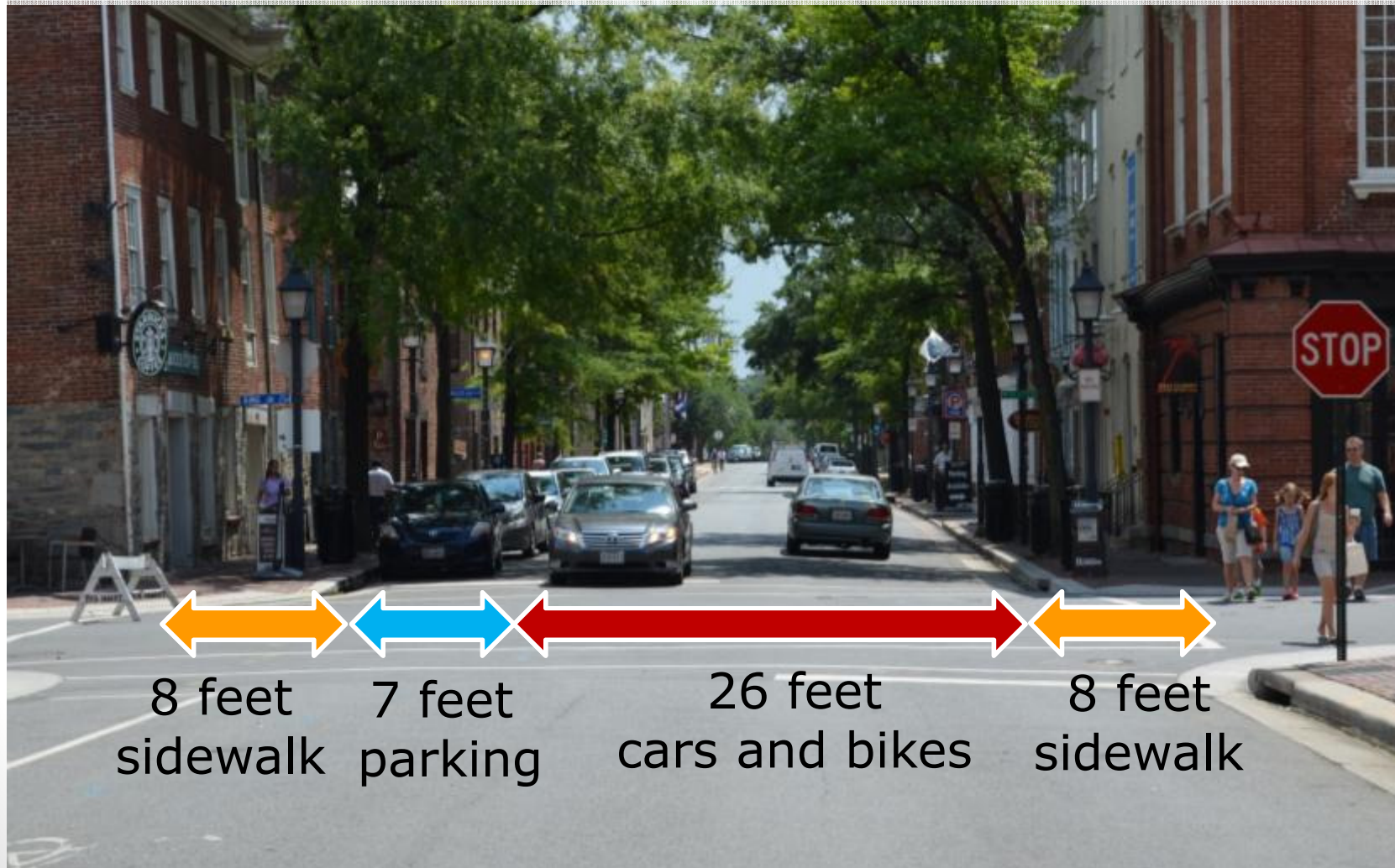


*consistent
throughout
week*



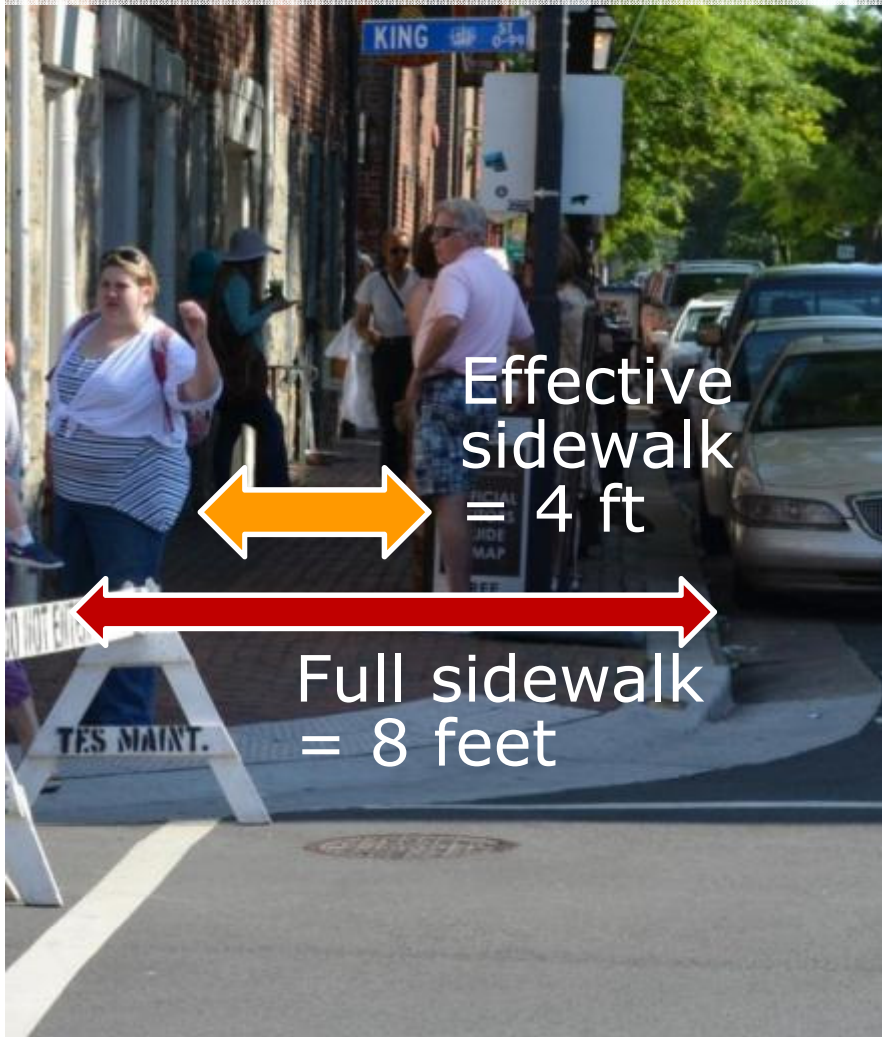
Union Street Today

From building face to building face....

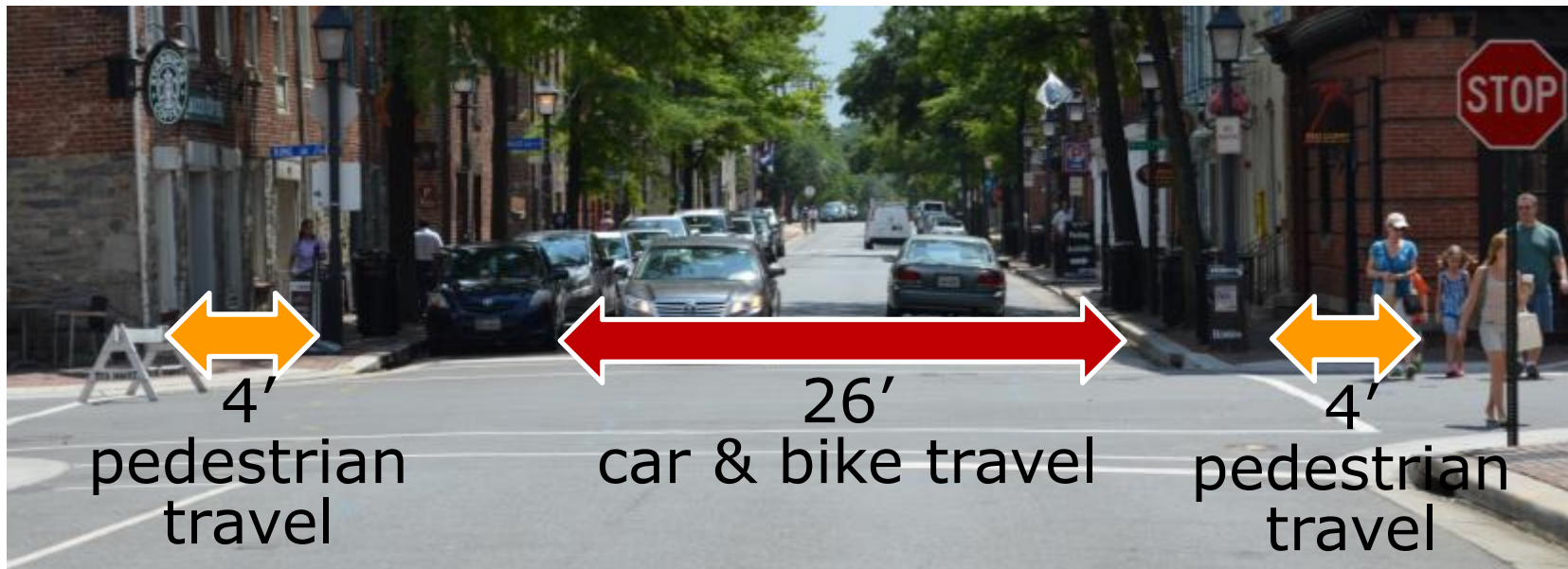


Union Street Today

How much space do pedestrians have?



How is Union Street distributed today?



By volume...

55% pedestrians

45% cars and bikes

By space...

25% for pedestrians

75% for cars and bikes

CORRIDOR ALTERNATIVES

ALTERNATIVE 1: No Change



EXISTING SPACE ALLOCATION FOR USER GROUPS



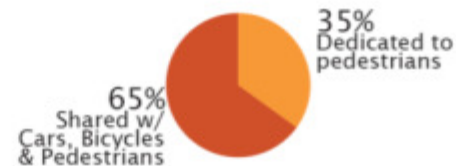
ALTERNATIVE 2: Narrow Lanes & Move Tree Boxes



POTENTIAL SPACE ALLOCATION FOR USER GROUPS



ALTERNATIVE 3: Shared Street



ALTERNATIVE 4: Remove Parking



EXISTING USER VOLUMES



PROS & CONS

- + No cost
- No improvements for pedestrians or bicycles

Other? _____

- + More pedestrian space
- + Traffic-calming effect
- + Better tree conditions
- Some parking lost
- Narrower travel lanes

Other? _____

- + Traffic-calming effect
- + Balanced use of street
- + More civic interaction
- Potential confusion with right-of-way
- Some parking lost
- Motorists may divert route

Other? _____

- + More pedestrian space
- + Maintains lane widths
- No parking
- Reduced buffer between sidewalk and travel lane
- May encourage speeding

Other? _____

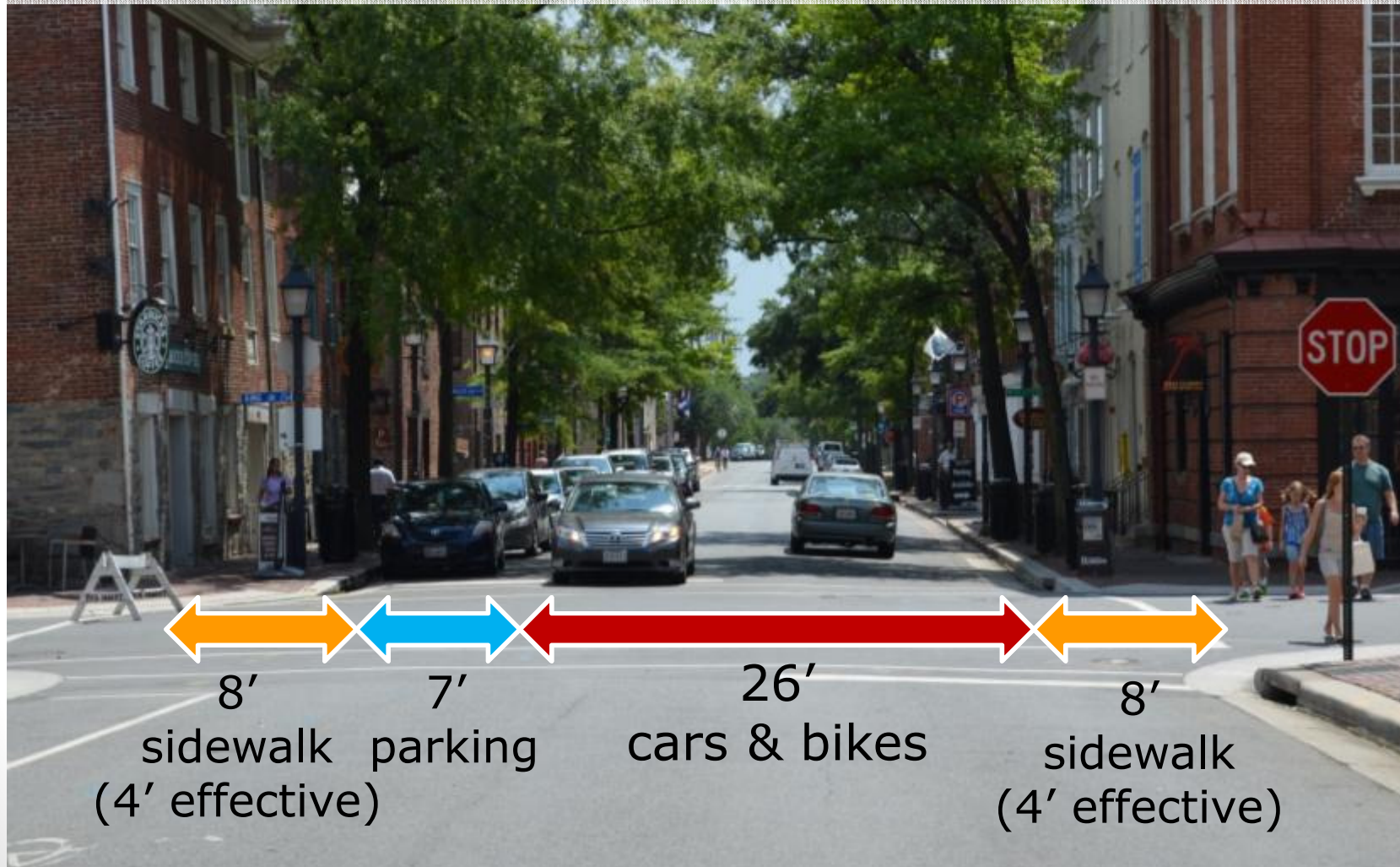


Union Street Corridor Study
City of Alexandria, Virginia



Corridor Alternative #1

Keep Existing Layout



Corridor Alternative #2

Narrow Lanes & Move Tree Boxes



Corridor Alternative #2

Narrow Lanes & Move Tree Boxes*



*Trees to be removed and replaced with new trees

Corridor Alternative #2



Narrow Lanes & Move Tree Boxes

Corridor Alternative #3

Shared Street



***sidewalk and roadway at same level**



Corridor Alternative #3

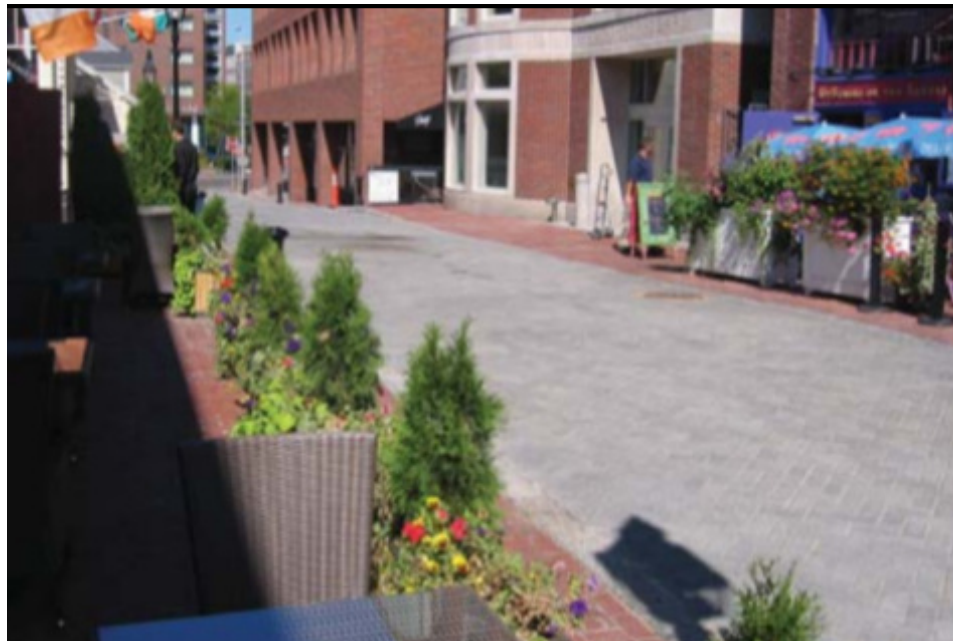
Benefits of a Shared Street

- Reduces travel speeds for cars & bicycles
- More efficient/balanced: functions differently with different user volumes
- More social activities & civic interaction
- Safety improvements

Corridor Alternative #3

Shared Street Example

- Harvard Square in Cambridge, MA



- Historic area, narrow sidewalks & streets, high pedestrian volume

Corridor Alternative #3

Shared Street

Example:

Ellsworth Street in
Silver Spring, MD



Corridor Alternative #3

Shared Street Example:

- Vordingburg, Denmark 1990-92
- 4,000 veh/day

Union Street, ~4,100 veh/day



Before.



The project.



After.

Corridor Alternative #4

Remove Parking



Corridor Alternative #4

keep existing trees



OR

move tree boxes out



Flexible Parking

- Reclaims pavement for public space and more active uses
- Possible to pilot alternate uses of parking spaces
- Potential for keeping parking part-time

San Francisco Examples



Flexible Parking

Mountain View, CA Example



LONG-TERM CORRIDOR OPTIONS

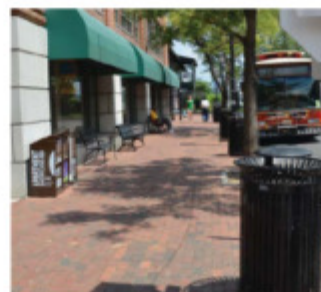


CONSISTENT ELEMENTS



Tree boxes in parking lane

- Enhance pedestrian accommodations
- Implement traffic calming
- Allow delivery truck loading/unloading
- Allow car, trolley, & motorcoach access
- Replace & relocate trees
- Implement a change in the core
- Facilitate changes at the intersection of King & Union
- Facilitate spot improvements
- Do not provide dedicated bike facilities
- Accommodate bike parking
- Accommodate turn restrictions



Wider sidewalks on King Street



Delivery trucks loading & unloading on Union Street



Union Street Corridor Study
City of Alexandria, Virginia



SHORT-TERM IMPROVEMENTS



- Mount Vernon Trail connection (see board)
 - Improve walking on east-side of Union
 - Improve trail connection

- Transition between Bike Lane & Shared-Lane Marking →



- Intersection of King & Union Streets (see board)
 - Improve pedestrian priority

- Pilot Part-Time Parking

- Test part-time parking restrictions that allow pedestrians to walk in parking lane or provide space for dining or gathering →



- Windmill Hill Park (see board)
 - Improve Wilkes Street Trail crossing
 - Improve intersection of Gibbon & Union Streets

- @ Various Locations:

- Increase Traffic Enforcement
- Add Bike Parking →





Next Steps

- Final Waterfront Commission Meeting (September 27, 2012)
 - Selection of preferred alternatives
- Planning Commission
- Transportation Commission
- City Council
- Final Plan Development